

Civil Report Card On GPS Performance

February 2009

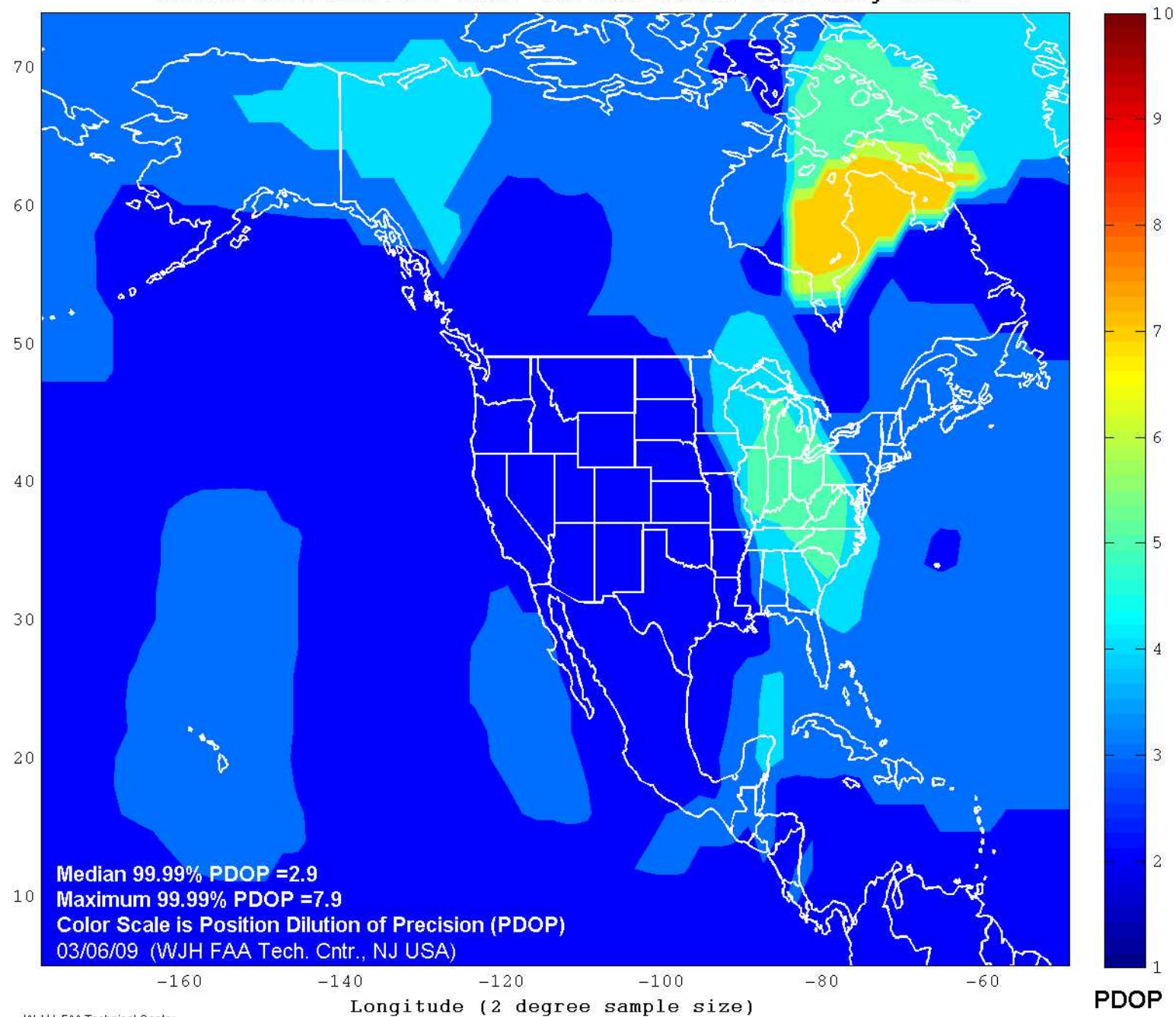
Operational Performance Parameter	CY 2008	Jan 2009	Feb 2009	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.48	30.99	30.96	↑	↓
<i>Average number of satellites usable in primary slots</i>	23.95 (99.80%)	23.99 (99.96%)	23.99 (99.94%)	↑	→
<i>Average availability of 6 satellites in view</i>	99.99%	100%	100%	↑	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.8	1.4	1.4	↑	→
<i>Worst Site</i>	5.8	4.2	3.9	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	3.3	2.4	2.6	↑	↓
<i>Worst Site</i>	17.6	7.5	7.2	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.6	2.8	2.9	↑	→
<i>Worst Site</i>	18.3	8.3	7.9	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.72	1.80	1.81	↓	→
<i>Worst Satellite</i>	2.14	2.62	2.50	↓	↑
95% Horizontal Error					
<i>Area Median</i>	2.36	2.23	2.31	↑	↓
<i>Worst Site</i>	3.35	2.80	3.15	↑	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.77%	99.91%	99.95%	↑	↑
95% Vertical Error					
<i>Area Median</i>	4.46	4.53	4.46	→	↑
<i>Worst Site</i>	4.95	5.41	5.23	↓	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.94%	99.93%	99.91%	↑	↓

Key: ↑ improving ↓ worsening → no significant change

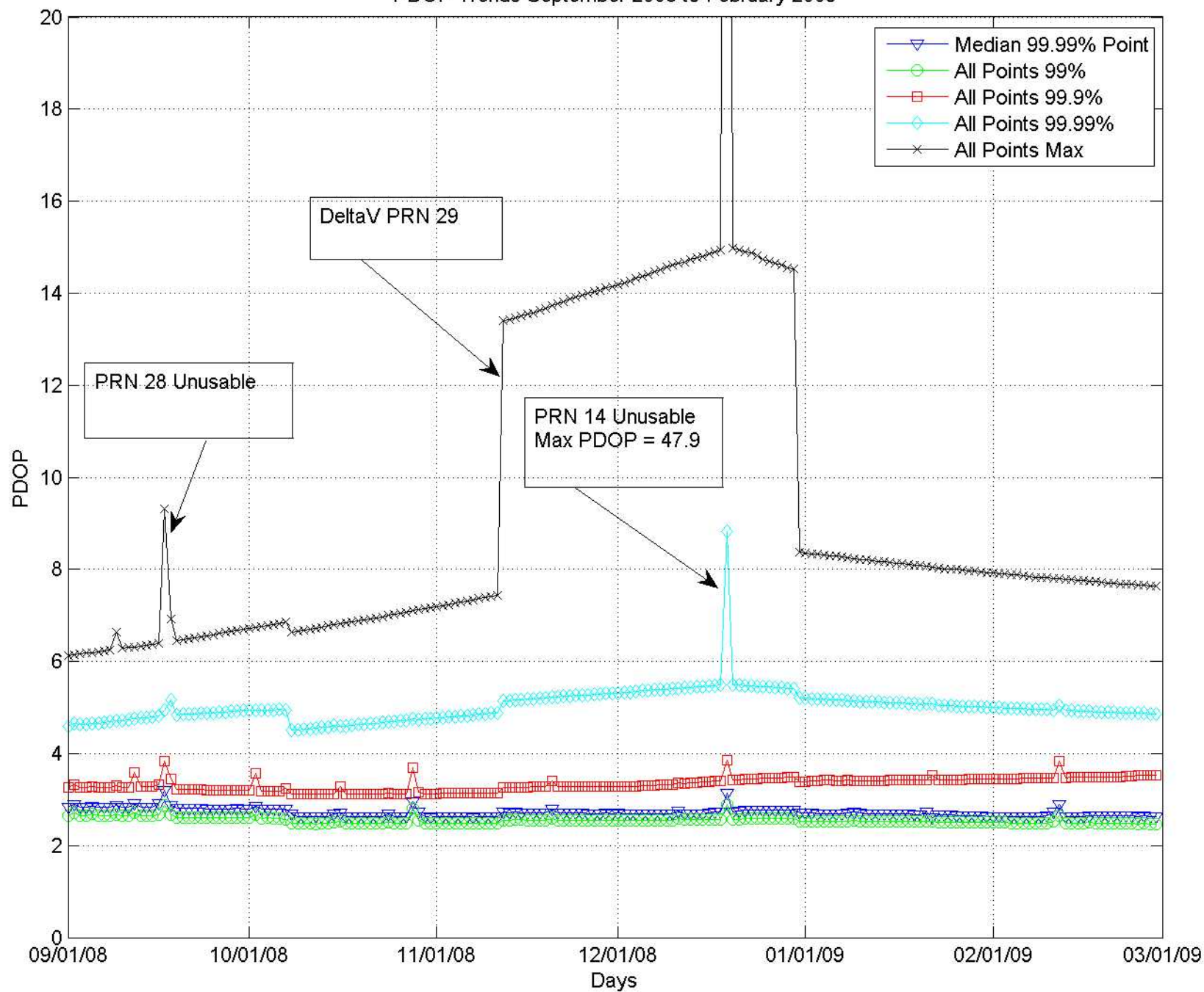
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

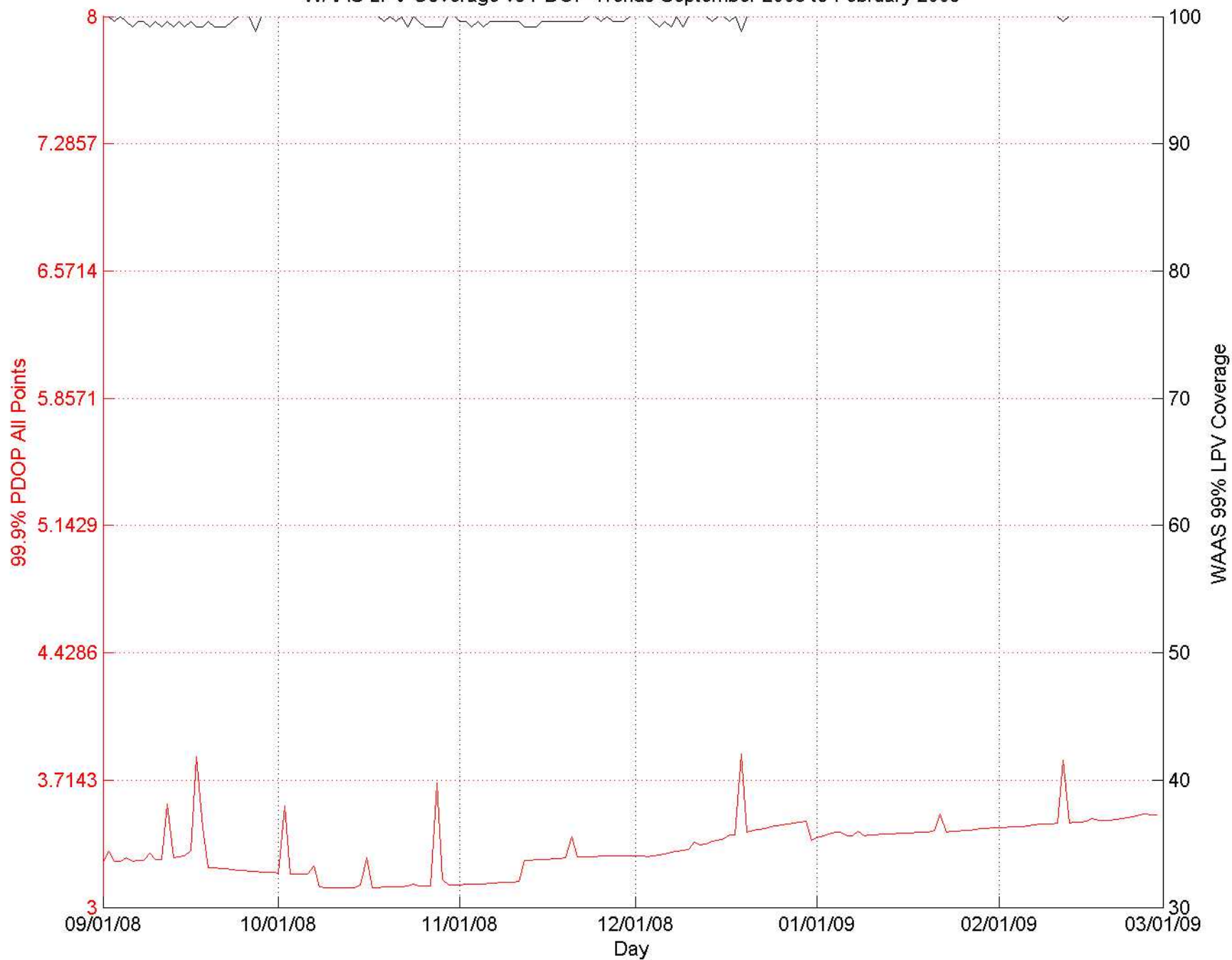
North America GPS PDOP 99.99% Index February 2009



PDOP Trends September 2008 to February 2009



WAAS LPV Coverage vs PDOP Trends September 2008 to February 2009



Six Satellite Availability Trends September 2008 to February 2009

